surface science

Contents

Volume 249 (1991) Nos. 1–3

Surface Science Letters

Surface height correlation functions of vicinal Si(111) surfaces using scanning tunneling microscopy
J.L. Goldberg, X.-S. Wang, N.C. Bartelt and E.D. Williams L285

A Ginzberg–Landau model of dimers on the Si(100) surface
G.P. Kochanski and J.E. Griffith L293

Structural modification of a 7×7 superstructure buried at the amorphous Si/Si(111) interface during solid phase epitaxial growth
A. Sakai, T. Tatsumi, I. Hirosawa, H. Ono and K. Ishida L300

New results on the reaction of Si{111} with Mg
J. Quinn and F. Jona L307

The mechanism of vibrational excitation in NO scattering on Ag(111)
R. Brako L312

The influence of steps on the formation of missing row reconstructions: STM and LEED investigations of Au(991)
M. Borbonus, R. Koch, O. Haase and K.H. Rieder L317

In situ regeneration of clean and ordered Pd(111) electrode surfaces by oxidative chemisorption and reductive desorption of iodine
M.E. Bothwell, G.J. Cali, G.M. Berry and M.P. Soriaga L322

Influence of the $Al_2O_3(0001)$ surface reconstruction on the Cu/Al_2O_3 interface
M. Gautier, J.P. Duraud and L. Pham Van L327

Intensity anomalies in adsorbate photoemission spectra for varying surface composition: Xe/Ni(11!) and Xe/Na/Ni(111)
W. Weiss and E. Umbach L333

Subsurface growth mode of cobalt and nickel silicides at room temperature
L. Luo, G.A. Smith, S. Hashimoto and W.M. Gibson L338

High resolution vibrational linewidth study of CO on Pt(111)
L.F. Sutcu, H.W. White and J.L. Wragg L343

Coadsorption of CO and methylamine on Ru(001): effect of coadsorbed CO on dissociation paths of methylamine
T. Sasaki, T. Aruga, H. Kuroda and Y. Iwasawa L347

Contents continued on inside cover

Surface Science

A LEED structural study of the CO induced reconstruction of Pd{110}: evidence for a missing row structure
P. Hu, L. Morales de la Garza, R. Raval and D.A. King 1

Ethylene monolayer and multilayer on Pt(111) below 52 K: determination of bond lengths by near-edge X-ray fine structure
A. Cassuto, Mane Mane and J. Jupille 8

The surface structure and composition of ⟨111⟩ and ⟨100⟩ oriented single crystals of the ordered alloy Pt_3Sn
A.N. Haner, P.N. Ross and U. Bardi 15

A diffuse LEED study of the adsorption structure of disordered benzene on Pt(111)
A. Wander, G. Held, R.Q. Hwang, G.S. Blackman, M.L. Xu, P. de Andres, M.A. Van Hove and G.A. Somorjai 21

Hydrogen adsorption on Pt(100) at low temperatures: work function and thermal desorption data
B. Pennemann, K. Oster and K. Wandelt 35

The adsorption and decomposition of methanol on copper overlayers on the Rh(100) surface
X. Jiang, J.E. Parmeter, C.A. Estrada and D.W. Goodman 44

Hydrogen on Rh(110): a walk through the phase diagram
W. Nichtl-Pecher, J. Gossmann, W. Stammler, G. Besold, L. Hammer, K. Heinz and K. Müller 61

Characterization of mono-, bi-, and multilayers of SF_6 on Ni(111) and O/Ni(111)
A. Klekamp and E. Umbach 75

Desorption product yields following Cl_2 adsorption on Si(111)7×7: coverage and temperature dependence
P. Gupta, P.A. Coon, B.G. Koehler and S.M. George 92

The adsorption of disilane on Si(111)-7×7 as studied by multiple internal reflection spectroscopy
K.J. Uram and U. Jansson 105

Reactions of SiF_4 adsorbed on Si(111)(7×7) at 30 K
C.-R. Wen, S.P. Frigo and R.A. Rosenberg 117

Adsorption of ammonia on Si(100),(111) surfaces: a theoretical approach
Zhou Ru-Hong, Cao Pei-Lin and Fu Song-Bao 129

Interaction of CO with Cu^+ cations: CO adsorption on $Cu_2O(100)$
D.F. Cox and K.H. Schulz 138

Alkali-metal-affected adsorption of CO on W(110) studied by metastable impact electron spectroscopy
W. Maus-Friedrichs, S. Dieckhoff and V. Kempter 149

Submonolayer cluster formation at the $Ge/Al_2O_3(1\bar{1}02)$ interface
G.P. Malafsky 159

XPS study of the segregation of sulphur on Ni–21Cr–8Fe (100) alloy
J.M. Grimal and P. Marcus 171

Lateral interactions and enhanced adsorption
P.A. Rikvold and M.R. Deakin 180

A SIMS study of nickel deposition on $TiO_2(100)$. Influence of the stoichiometry of the support
S. Bourgeois, F. Jomard and M. Perdereau 194

An ab initio study of H chemisorption on Li clusters in fcc (110) and fcc (111) symmetries
A.S. Hira and A.K. Ray 199

Interactions in the $Fe/TiO_2(110)$ system
Junzhuo Deng, Dezheng Wang, Xuming Wei, Runsheng Zhai and Hongli Wang 213

New features in the low energy Auger spectra of the nitrides of titanium and vanadium
P.T. Dawson and K.K. Tzatzov 223

Step roughness on vicinal Ag(111)
J.F. Wolf, B. Vicenzi and H. Ibach 233

Molecular dynamics study of diffusion in a molten surface
X.J. Chen, F. Ercolessi, A.C. Levi and E. Tosatti 237

The effect of phase transitions, surface diffusion, and defects on heterogeneous reactions: multiplicities and fluctuations
D.G. Vlachos, L.D. Schmidt and R. Aris 248

Electronic structure, magnetism and growth of ultrathin films of transition metals
F. Gautier and D. Stoeffler 265

Electronic structure of a $Cu_{75}Pt_{25}$ disordered alloy
E. Arola, C.J. Barnes, R.S. Rao, A. Bansil and M. Pessa 281

Adsorption of krypton on a gold surface studied by the ICISS method
W. Soszka 289

Study of residual damage in Si(001) due to low energy (110 eV) Ar^+ and Cl^+ bombardment using medium energy ion scattering
A.H. Al-Bayati, K.G. Orrman-Rossiter and D.G. Armour 293

Direct determination of crystal surface periodicity from scattering and recoiling azimuthal anisotropy
F. Masson, H. Bu, M. Shi and J.W. Rabalais 313

Reaction of chlorine and molybdenum by modulated molecular beam mass spectrometry
M. Balooch, D.R. Olander, W.J. Siekhaus and D.E. Miller 322

Diffraction and rainbows in the scattering of argon from 2H-W(100)
E.K. Schweizer, C.T. Rettner and S. Holloway 335

A molecular dynamics study of radiation induced electrostatic disruption of insulator surfaces
E.Y. Wu, R.J. Friauf and T.P. Armstrong 350

Radiation fields in a surface layer model: application to optical SHG
F. Marlow, L. Werner and W. Hill 365

Energy-broadening of field-emitted electrons due to Coulomb collisions
A. Modinos and J.P. Xanthakis 373

Announcement 379

Author index 380

Subject index 383

Instructions for Authors 391